

# Rhodora

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### NEW TAXA AND NOMENCLATURAL CHANGES IN THE GENUS *TRICHIPTERIS* (CYATHEACEAE)

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The genus *Trichipteris* was substantially enlarged and redefined by Tryon (1970). However, a number of nomenclatural problems were left unresolved pending a thorough revision of the group. The additions and changes that make up this contribution are the result of my revisionary study of the genus (Barrington, 1974). One new species, two new varieties, new combinations, changes in status, and comments on correct authorship are the result.

Dr. Rolla M. Tryon of the Gray Herbarium, Harvard University, contributed a number of comments and suggestions to this work, for which I am grateful. Dr. David B. Lellinger, of the U. S. National Herbarium, brought to my attention the unusual specimens of *Trichipteris nigripes*, and suggested the epithet "brunnescens." Ms. Mary Robbins provided the drawings of the new species of *Trichipteris* from Guyana (British Guiana).

*Trichipteris costaricensis* (Kuhn) Barr., comb. nov.  
*Hemitelia costaricensis* Kuhn, *Linnaea* 36:159. 1869.

*Trichipteris demissa* (Morton) Tryon var. *thysanolepis* Barr., var. nov. Plate 1: figures 1 & 2.

Differt a varietate typica squamis petioli fimbriatis, lamina 1-pinnato-pinnatifida, ramis laminare furfure squamularum et trichomatibus longis, paraphysibus longitudine sporangia plus minusve aequantibus.



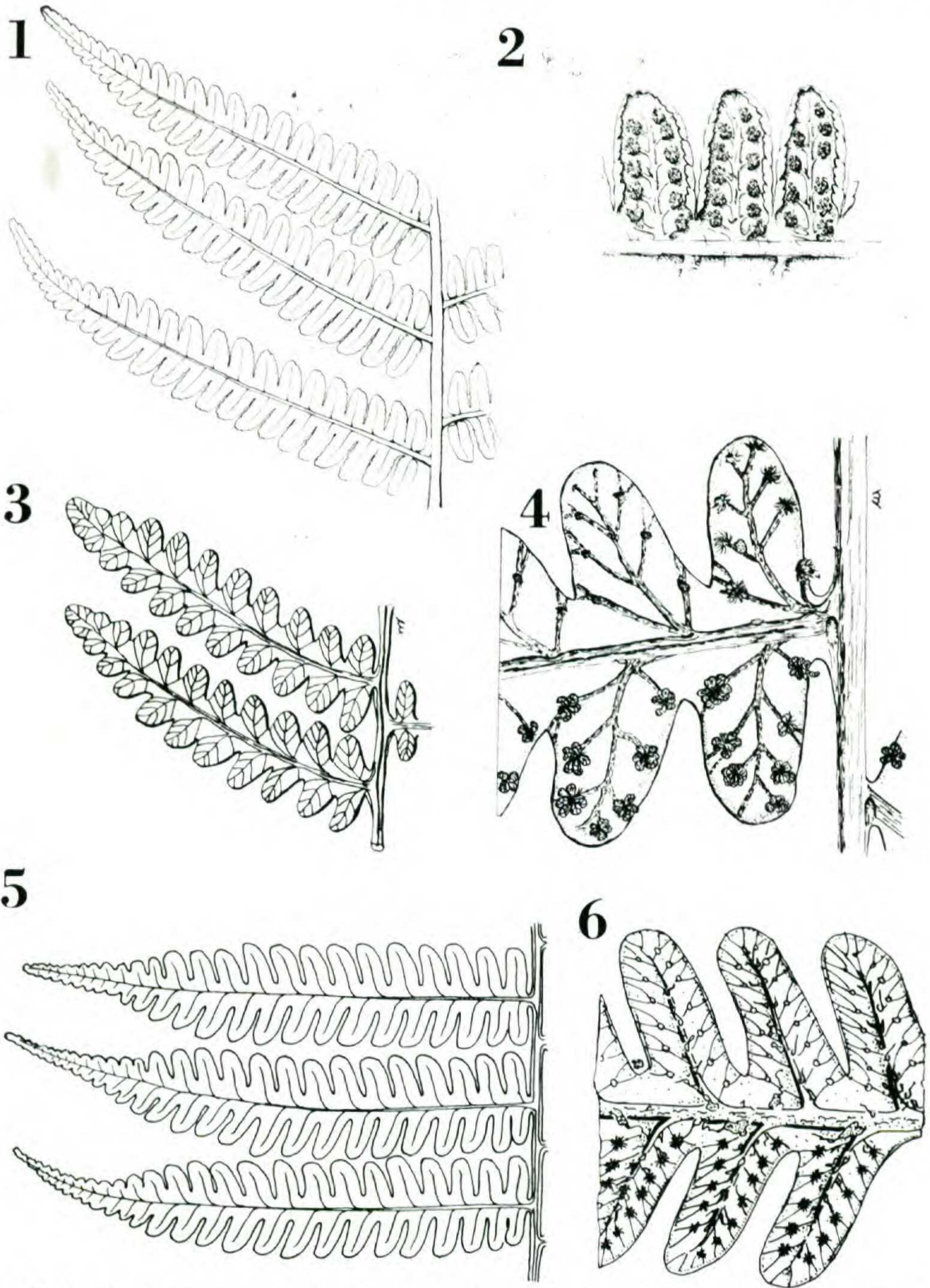


Plate 1. Figures 1 & 2: *Trichipteris demissa* (Morton) Tryon var. *thysanolepis* Barr., var. nov. Maguire Wurdack & Bunting 37291, GH; figure 1, three central pinnae  $\times \frac{1}{2}$ ; figure 2, three lobes of a pinna  $\times 1\frac{1}{2}$ . Figures 3 & 4; *Trichipteris nanna* Barr., sp. nov. Tillet Tillet & Boyan 45119, US; figure 3, two central pinnae  $\times \frac{1}{2}$ ; figure 4, basal part of a pinna  $\times 2$ . Figures 5 & 6: *Trichipteris nigripes* (C. Chr.) Barr. var. *brunnescens* Barr., var. nov. Cuatrecasas 16155-C, US; figure 5, three central pinnules from a central pinna  $\times \frac{1}{2}$ ; figure 6, central part of a pinnule  $\times 2$ .



Holotypus: Venezuela, Territorio de Amazonas, Summit, Cerro de la Neblina, Río Yatua, January 15, 1954; *Maguire, Wurdack & Bunting* 37291, NY. Isotypi: GH, US. Paratypes: Venezuela, Territorio de Amazonas, Cerro de la Neblina, Río Yatua; *Maguire, Wurdack & Maguire* 42346, US; *Maguire, Wurdack & Bunting* 37100, US.

The varietal epithet, derived from *θύσανος* (fringe), and *λεπίς* (scale) refers to the distinctive multicellular trichomes borne along the edge of the petiole scales, which are absent in plants of var. *demissa*. The lamina of var. *thysanolepis* is 1-pinnate pinnatifid, while in var. *demissa* it is 2-pinnate or more complex. The paraphyses of variety *thysanolepis* are longer than those of the type variety.

**Trichipteris Dombeyi** (Desv.) Barr., comb. nov. *Alsophila Dombeyi* Desv., *Mém. Soc. Linn. Paris* 6:320. 1827.

**Trichipteris falcata** (Kuhn) Barr., comb. nov. *Alsophila falcata* Kuhn, *Linnaea* 36:155. 1869.

**Trichipteris gibbosa** (Kl.) Barr., comb. nov. *Alsophila gibbosa* Kl., *Linnaea* 18:542. 1844.

**Trichipteris nanna** Barr., sp. nov. Plate 1: figures 3 & 4.

Caulis erectus, sed gracilis, ad 1 m. altus, diametro 1.5 cm., inter cicatrices anthracina. Petiolus circa 10-15 cm. longus, ferrugineus, sulcatus, inermis vel pauce tuberculatus; squamis structura late-marginatis fuscis albidolimbatis integris vel erosis, parte media fusca saepe deficienti vel indistincta. Lamina 40 cm. longa, 1-pinnato-pinnatifida obovato-lanceolata coriacea, apicem versus gradatim acuminata. Rhachis adaxialiter sulcata glabra, abaxialiter squamis argentis adpressis. Pinnae centrales sessiles oblonga, base truncata vel cuneata, apice obtusa integra. Rhachides pinnarum adaxialiter sulcatae, glabrae, abaxialiter glabrae vel trichomidiis albescentibus, basaliter pneumotodiis lacrimiformibus. Costae adaxialiter glabrae, abaxialiter glabrae vel trichomidiis albescentibus. Lobi pinnarum integri, apicibus rotundatis, in sicco abaxialiter revoluti. Venae liberae, ad soros submarginales furcatae



vel simplices. Pagina laminae utrinque glabra, vel pagina abaxialis trichomidiis paucis. Sori exindusiati, paraphysibus porphyreis tranlucentibus sporangia plus minusve aequantibus; receptacula hirsuta.

Holotypus: British Guiana, Upper Mazaruni River Basin, Mt. Ayanganna, on shoulder of E. flank, about Thompson Camp; 1418 m., 12 August 1960; *Tillet, Tillet & Boyan* 45119, US.

The species epithet refers to the diminutive size of the plant, relative to that of most tree ferns. From the other 14 small species in the genus, *T. nanna* is best separated on the basis of its blunt-tipped pinnae and blunt, entire ultimate segments.

**Trichipteris nigripes** (C. Chr.) Barr., comb. nov. *Alsophila nigripes* C. Chr. Ind. Fil:45. 1905. nom. nov. for *Alsophila melanopus* Hook., Syn. Fil. ed. 1:37. 1866. non *A. melanopus* Hassk., Journ. Bot. 7:325. 1855.

**Trichipteris nigripes** (C. Chr.) Barr. var. **brunnescens** Barr., var. nov. Plate 1: figures 5 & 6.

Differt a varietate typica petiolis aculeatis, ramis laminarum trichomatibus, pinnulis sessilibus vel brevi-petiolutatis.

Holotypus: Colombia, Valle de Cauca, Río Yurumanguí, Veneral, 5-50 m., 1944; *Cuatrecasas* 16155-C, US. Isotypus: GH. Paratypus: Colombia, Valle de Cauca, Agua Clara, highway from Buenaventura to Cali, 100 m., 1944; *Killip & Cuatrecasas* 38884, F. Isoparatypi: GH, US.

This is a Pacific coastal variety of *T. nigripes* which centers in the Dagua Valley of Colombia, an important center for endemism in the genus. It differs from the typical plants of the species in having well-developed petiole spines, sessile pinnules, and trichomes on the leaf axes.

**Trichipteris pauciflora** (Kuhn) Tryon. *Alsophila pauciflora* Kuhn, Linnaea 36:156. 1869.



The basionym for the combination in *Trichipteris* was cited as "Alsophila pauciflora Presl, Gefässbündel Stipes der Farrn:35. 1847 (preprint from Abh. Bohm. Ges. 5(5): 343. 1848"). However, Presl's name is a *nomen nudum*, and the author of the basionym and reference require correction. For a detailed discussion of this nomenclatural problem, see Nicolson (1975).

***Trichipteris phalerata* (Mart.) Barr., comb. nov.** *Cyathea phalerata* Mart., Denkschr. Bot. Ges. Regensb. 2:146 t. 2 f. 3. 1822.

***Trichipteris phalerata* (Mart.) Barr. var. *Iheringii* (Rosenst.) Barr., comb. & stat. nov.** *Alsophila Iheringii* Rosenst., Hedwigia 56:358. 1915.

***Trichipteris Schlimii* (Kuhn) Barr., comb. nov.** *Alsophila Schlimii* Kuhn, Linnaea 36:157. 1869.

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